Please add the following new claims (claims 27-54):

27. A defective recombinant adenovirus comprising a DNA sequence encoding brain-derived neurotrophic factor (BDNF) or a derivative thereof.

28. An adenovirus according to Claim 27, wherein the DNA sequence encodes prepro-BDNF.

29. An adenovirus according to Claim 27, wherein the DNA sequence is a cDNA sequence.

30. An adenovirus according to Claim 27, wherein the DNA sequence is a gDNA sequence.

31. An adenovirus according to Claim 27, wherein the DNA sequence encodes human prepro-BDNF.

32. An adenovirus according to Claim 27, wherein the DNA sequence is operably linked to a signal controlling expression in nerve cells.

33. An adenovirus according to Claim 32, wherein the signal is selected from the group consisting of viral promoters and RSV-LTR promoters.

34. An adenovirus according to Claim 33, wherein the signal is selected from the group consisting of the E1A, MLP, and CMV promoters.

35. A defective recombinant adenovirus comprising a cDNA sequence encoding human prepro-BDNF, operably linked to the RSV-LTR promoter.

36. A defective recombinant adenovirus comprising a gDNA sequence encoding human prepro-BDNF, operably linked to the RSV-LTR promoter.

37. A defective recombinant adenovirus comprising a DNA sequence encoding human brain-derived neurotrophic factor (hBDNF) or a derivative thereof operably linked to a promoter controlling expression in nerve cells.

38. A defective recombinant adenovirus according to Claim 37, wherein the promoter is selected from the group consisting of the neuron-specific enolase promoter and the GFAP promoter.

39. An adenovirus according to Claims 27, lacking regions of its genome which are necessary for replication in a target cell.

40. An adenovirus according to Claim 39, comprising ITRs and a sequence permitting encapsulation, wherein the E1 gene and at least one of the E2, E4 or L1-L5 genes are nonfunctional.

41. An adenovirus according to Claim 39, wherein said adenovirus is a type Ad 2 or Ad 5 human adenovirus or a CAV-2 type canine adenovirus.

42. A method for the treatment and/or prevention of a neurodegenerative disease comprising administration of an effective amount of an adenovirus according to Claim 27.

43. A method according to Claim 42, wherein said disease is selected from the group consisting of Parkinson's disease, Alzheimer's disease, Huntington's disease and ALS.

44. A pharmaceutical composition comprising one or more defective recombinant adenoviruses according to Claim 27.

45. A pharmaceutical composition according to Claim 44, in injectable form.

46. A pharmaceutical composition according to Claim 44, comprising between 10^4 and 10^{14} pfu/ml of defective recombinant adenovirus.

47. A pharmaceutical composition according to Claim 46, comprising between 10^6 to 10^{10} pfu/ml of defective recombinant adenovirus.

48. A mammalian cell infected with one or more defective recombinant adenoviruses according to Claim 27.

49. A cell according to Claim 48, wherein said cell is a human cell.

50. A cell according to Claim 49, wherein the cell type is selected from the group consisting of fibroblast, myoblast, hepatocyte, endothelial cell, glial cell and keratinocyte.

51. An implant comprising cells according to Claim 48 and an extracellular matrix.

52. An implant according to Claim 51, wherein the extracellular matrix comprises a gelling compound selected from the group consisting of collagen, gelatin, glucosaminoglycans, fibronectin and lectins.

53. An implant according to Claim 51, wherein the extracellular matrix comprises a support permitting anchorage of the cells.

54. An implant according to Claim 53, wherein the support comprises polytetrafluoroethylene fibres.